

REMARKS

The specification is currently objected to for informalities. Claims 5-7, 12-14 and 19-21 stand rejected under 35 U.S.C §112 as being indefinite. Claims 2-21 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 7, 14 and 21 of copending Application No. 09/844,345. Claims 1-21 stand rejected under 35 U.S.C. §102(e) as being anticipated by Cheng et al. (U.S. Pub. No. 2002/0010911) herein referred to as *Cheng*. Claims 1-21 also stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. No. 6,173,444 issued to Archambault (herein *Archambault*). Claims 1-2, 5, 7-9, 12, 14-16, 19 and 21 have been amended. No claims have been cancelled or added. As such, claims 1-21 are pending. Applicant respectfully requests reconsideration of the application as amended in view of the following remarks.

Objection of the Abstract for Informalities

The abstract of the disclosure is currently objected to by the office action for informalities. The abstract has been amended to remove information given in the title and an improper word. Applicant submits that the abstract complies with the guidelines set forth in MPEP §608.01(b), and respectfully request the objection of the abstract be withdrawn.

Objection of the Specification for Informalities

The specification is currently objected to by the office action for informalities. Paragraphs 002 and 007 have been amended to correct minor grammatical errors. No new matter has been introduced in so doing. The office action has requested a substitute specification to be filed that complies with the recommendations set forth in MPEP §608.01(d). In particular the office action states a brief summary of the invention is missing. Applicant contends 37 CFR §1.77(b) and MPEP §608.01(d) merely recommend the arrangement of elements of the application, if applicable, and place no requirement on applicant to include a summary of the invention. Thus, applicant respectfully requests the examiner withdraw objection of the specification.

35 U.S.C. §112 Rejections of Claims 5-7, 12-14 and 19-21

Claims 5-7, 12-14 and 19-21 are currently rejected under 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. Specifically, the office action has rejected claims 6, 13 and 20 as reciting the limitation “the lattice values” without presenting antecedent basis for the limitation. However, the limitation is defined in preceding claims 5, 12 and 19 respectively. Claims 5, 12 and 19 recite computing a lattice value for each pointer parameter, and therefore provide antecedent basis for the limitation of “the lattice values” in claims 6, 13 and 20. Furthermore, claims 5, 7, 12, 14, 19 and 21 have been amended to correct grammatical errors and clarify the subject matter claimed as the invention. In view of these amendments, Applicant respectfully requests the 35 U.S.C. §112 rejection of claims 5-7, 12-14 and 19-21 be withdrawn.

Double Patenting Rejection – Submission of Terminal Disclosure

Claims 7, 14, and 21 have been provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 5, 19, and 30 of copending Application No. 09/844,345 (US Pub. No. 2002/0162096). In response, applicant submits herein a timely filed Terminal Disclaimer under 37 CFR § 1.321. It is respectfully requested that the double patenting rejection of claims 7, 14 and 21 be withdrawn.

35 U.S.C. §102 Rejection - Cheng

Claims 1-21 stand rejected under 35 U.S.C. §102(e) as being anticipated by Cheng et al. (U.S. Pub. No. 2002/0010911). Applicant respectfully traverses the rejection as set forth below.

Amended claim 1 recites the following

A method, comprising:
analyzing each routine, of a software program having a plurality of separately compilable routines, to create a plurality of local side-effect lattice problems for each routine; and
merging the local side-effect lattice problems to create a global side-effect lattice problem.

As recited above, applicant claims creating a plurality of side-effect lattice problems for each routine of a software program. Machine-readable medium claim 8 and system claim 15 recite similar limitations.

The *Cheng* reference is generally drawn to a compile-time pointer analysis algorithm. *Cheng* discloses an intraprocedural stage that summarizes the behavior of each function of a program. The summarized pointers are represented using access paths based on the summary behavior (3 [0031]). *Cheng* does not disclose creating lattice problems for separate routines, as claimed by applicant. Since *Cheng* does not teach at least this limitation, claim 1 is patentable over *Cheng* under 35 U.S.C §102(e). Claims 8 and 15 include similar limitations and are therefore also patentable over the *Cheng* for at least the same reason. Claims 2-7, 9-14 and 16-21 depend from claims 1, 8 and 15 and are patentable over *Cheng* by at least such dependency. Applicant respectfully requests the rejection of the claims be withdrawn.

35 U.S.C. §102 Rejection - Archambault

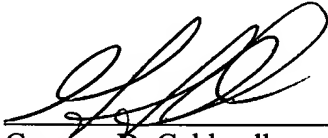
Claims 1-21 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. No. 6,173,444 issued to Archambault. The *Archambault* reference discloses a method of reducing alias sets associated with program pointers. Pointer variables referenced in each function of the program are gathered and saved in a data structure called the pointer alias graph. *Archambault* does not disclose creating lattice problems for separate routines. Since *Archambault* does not teach at least this limitation, claim 1 is patentable over *Archambault* under 35 U.S.C. §102. Claims 8 and 15 include similar limitations and are therefore also patentable over the *Archambault* for at least the same reason. Claims 2-7, 9-14 and 16-21 depend from claims 1, 8 and 15 and are patentable over *Archambault* by at least such dependency. Applicant respectfully requests the rejection of the claims be withdrawn.

CONCLUSION

Applicant respectfully submits that for at least the foregoing reasons, all rejections have been overcome. Applicant submits all claims are now in condition for allowance and such action is earnestly solicited. Any fees in connection with this communication may be directed to Deposit Account No. 02-2666

Respectfully submitted,
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Date: 8/28/04



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